EvalBrief: Systems of Care

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Intake Characteristics of Boys Enrolled in System-of-Care Services: Findings from Phase II of the National Evaluation

In March 2000, the demographic, clinical, and functional characteristics of girls entering the Comprehensive Community Mental Health Services for Children and Their Families Program were the topic of a *System-of-Care Evaluation Brief* (Volume 1, Issue 6). Intake data on girls 5–18 years of age from Phase I grant communities participating in the national evaluation were used in these analyses. Among the findings were differences in diagnoses, presenting problems, and functional difficulties between girls in three different age categories (i.e., 5–10 years old, 11–14 years old, and 15–18 years old). In particular, adolescent girls were more depressed, had more problems functioning in the community, and had more problems with substance abuse than girls aged 5–10.

The purpose of this *EvalBrief* is to examine the demographic, clinical, and functional characteristics of boys entering system-of-care services. The analyses described here were for the 6,936 boys aged 5–18 who were enrolled in system-of-care programs from Phase II of the national evaluation (i.e., grant communities funded in 1997 and 1998).

The majority of the boys (n = 5,810) were White (57.9%); Black or African-American was the second largest racial group represented in the sample (26.2%), and 14% were Hispanic/Latino.

Boys were referred into system-of-care services from a variety of sources; the five most frequently reported (n = 5,649) sources were mental health agencies (23.7%), schools (21.0%), corrections (10.3%), courts (10.3%), and child welfare services (9.8%). The five most frequent *Diagnostic and Statistical Manual for Mental Disorders*, Fourth Edition (*DSM–IV*; American Psychiatric Association [APA], 1994) diagnoses (n = 4,881) were attention-deficit/hyperactivity disorder (39.7%), oppositional defiant disorder (27.6%), mood disorders (26.2%), conduct disorder (16.5%), and adjustment disorder (11.6%).

Study Highlights

- ***For 5,649 boys aged 5–18 who were enrolled in system-of-care programs from Phase II of the national evaluation, the five most frequently reported referral sources were mental health agencies, schools, corrections, courts, and child welfare services.***
- ***The five most frequent clinical diagnoses (n = 4,881) were attention-deficit/hyperactivity disorder, oppositional defiant disorder, mood disorders, conduct disorder, and adjustment disorder.***
- ***The largest percentages of family risk factors were reported for families whose boys entered system-of-care services between 5 and 10 years of age, compared to older boys aged 11 and older.***
- ***Fewer boys aged 5–10 entered systems of care with marked or severe impairment, compared to boys in the 11–14 age group and 15–18 age group, a statistically significant finding.***
- ***Study results point toward the need for targeted interventions when working with boys in different age groups within systems of care. Early intervention and screening programs are needed, as well as continued support for boys entering their preteen and early teen years.***

Examination of the distribution of the five most frequent diagnostic categories by age group indicates that there is variation in diagnosis based upon age. For example, Table 1 indicates that boys aged 5–10 years generally entered services with diagnoses such as ADHD and adjustment disorders in higher proportions relative to the two older-aged groups of boys. Boys who entered system-of-care services between the ages of 11 and 14 were more likely assigned diagnoses such as oppositional defiant disorder and mood disorders. Finally, older boys tended to have conduct disorder reported as their primary DSM diagnosis compared to the two younger age groups.

Several significant differences also emerge when examining risk factors experienced by boys entering systems of care by age group. Their caregivers reported that the largest percentage of boys who had a history of psychiatric hospitalization and of being physically abused was between the ages of 11 and 14. Larger percentages of boys between 15 and 18 years old had attempted suicide, had run away from home, and had a history of substance abuse. Finally, the largest percentage of boys who had a history of being sexually abused entered system-of-care services between 5 and 10 years old (see Table 2).

Table 1
***DSM–IV* Diagnoses by Age Group**

Diagnostic Category	5–10 Years	11–14 Years	15–18 Years	Chi-Square[a]
ADHD	**54.9%**	43.3%	22.4%	350.00, $p < .001$
Oppositional Defiant Disorder	27.7%	**30.3%**	24.5%	14.61, $p = .001$
Mood Disorder	20.4%	**30.6%**	26.4%	43.31, $p < .001$
Conduct Disorder	3.3%	11.7%	**33.2%**	537.27, $p < .001$
Adjustment Disorder	**16.0%**	11.5%	7.8%	48.83, $p < .001$

[a] *df* = 2 for all analyses.

Table 2
Child Risk Factors by Age Group

Child Risk Factor	5–10 Years	11–14 Years	15–18 Years	Chi-Square[a]
Previous Psychiatric Hospitalization (*n* = 5,862)	19.3%	**27.7%**	25.3%	38.59, $p < .001$
History of Physical Abuse (*n* = 5,702)	24.9%	**27.5%**	23.3%	9.24, $p = .010$
History of Sexual Abuse (*n* = 5,592)	**16.0%**	15.3%	11.7%	15.50, $p < .001$
Run Away (*n* = 5,806)	16.7%	30.2%	**43.6%**	303.55, $p < .001$
Attempted Suicide (*n* = 5,810)	6.5%	11.7%	**14.7%**	62.18, $p < .001$
History of Substance Abuse (*n* = 5,866)	1.9%	16.1%	**53.0%**	1,421.30, $p < .001$
Sexually Abusive Toward Others (*n* = 5,733)	8.8%	8.6%	8.4%	0.125, $p = .940$

[a] *df* = 2 for all analyses.

Table 3
Family Risk Factors by Age Group

Family Risk Factor	5–10 Years	11–14 Years	15–18 Years	Chi-Square[a]
History of Domestic Violence (*n* = 5,647)	**52.4%**	49.2%	41.1%	48.92, $p < .001$
History of Mental Illness (*n* = 5,564)	**58.5%**	53.5%	42.2%	98.45, $p < .001$
Biological Parents: History of Psychiatric Hospitalization (*n* = 2,592)	**39.6%**	36.8%	38.9%	1.67, $p = .435$
Biological Parents: Convicted of Crime (*n* = 5,464)	**51.1%**	44.9%	41.8%	29.92, $p < .001$
History of Substance Abuse (*n* = 5,623)	**66.3%**	64.6%	61.2%	10.51, $p = .005$
Biological Parents: Received Substance Abuse Treatment (*n* = 3,178)	**54.4%**	52.9%	51.7%	1.44, $p < .487$

[a] *df* = 2 for all analyses.

Family history was also examined by age group. As noted in Table 3, the percentage of families who experienced each of six family risk factors listed was quite high. Statistically significant differences exist between age groups on four of the risk factors, (i.e., history of domestic violence, history of mental illness in family, biological parents convicted of crime, and family history of substance abuse), but perhaps more importantly, the data reveal that the largest percentages of family risk factors were reported for families whose boys entered system-of-care services between 5 and 10 years of age (see Table 3).

Behavioral and Functional Indicators

Two measures were selected to examine boys' behavioral and emotional problems and overall functioning. The first measure, the Child Behavior Checklist (CBCL; Achenbach, 1991), measures competencies and behavioral and emotional problems among children aged 4 through 18 years. It has three competence scales (School, Social, and Activities), a total competence scale, eight narrowband syndrome scales (e.g., Withdrawn, Anxious/Depressed, Somatic Complaints, etc.), two broadband syndrome scales (Internalizing, Externalizing), and a Total Problem Scale. In the analysis to follow, T-scores on the Total Problem Scale were selected as a measure of overall child behavioral and emotional problems. The Total Problem Scale has a T-score range from 23 to 100, with scores over 63 being in the clinical range.

The second measure was the Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 1990). The CAFAS measures functioning in eight domains: School, Home, Community, Behavior Towards Others, Mood/Emotions, Self-Harmful Behavior, Substance Use, and Thinking. Scores on the domains can be summed to produce a Total CAFAS Scale score, which will be examined below. The Total CAFAS Scale score has a range from 0 to 240. Total scores of 40 or below indicate *minimal* impairment; scores from 50 to 90 indicate *moderate* impairment, scores from 100 to 130 indicate *marked* impairment, and those 140 or higher indicate *severe* impairment.

Results

Results from an analysis of variance indicated that the mean CBCL Total Problem Scale T-scores between the three groups were significantly different ($F = 59.98$, $df = 2/2,680$, $p < .001$). Post-hoc T-tests indicate that the mean score for the 15–18-year-old group (66.27; $n = 757$) was significantly lower than the mean score from both the 5–10-year-old group (70.72; $t = 8.86$, $df = 1,503.83$, $n = 836$, $p < .001$) and the 11–14-year-old group (70.93; $t = 9.68$, $df = 1,491.48$, $n = 1,090$, $p < .001$). Note that although older boys may enter systems of care with significantly lower T-scores, each of the groups' mean scores is within the clinical range of this scale.

In the area of functional impairment, the distribution of the levels of impairment was significantly different ($\chi^2 = 51.03$, $df = 8$, $p < .001$). As seen in Table 4, fewer boys between the ages of ages of 5 and 10 entered systems of care with marked or severe impairment (53.5%), compared to boys in the 11–14 age group (62.5%) and 15–18 age group (62.3%), a statistically significant finding.

Summary

As with the girls from the Phase I grant communities, boys from different age groups present with significantly different problems and experiences. For instance, with regard to diagnosis, a large percentage of boys 5–10 years old are referred into care because of ADHD. Older boys, however, enter care because of diagnoses like conduct disorder. These differences may be explained by referral source. For example, boys with ADHD are likely being identified for services by schools, the second largest referral source for that age group (28.7%), just behind mental health agencies/providers (34.3%). Older boys, however, are likely being identified for services because of problems outside of school, such as truancy (a diagnostic criterion for conduct disorder) or illegal behavior. This notion is supported by the fact that the two most frequent referral sources for the 15–18 age group are corrections (21.1%) and courts (17.2%).

With regard to child risk factors, larger percentages of boys aged 5–14 enter system-of-care services with histories of previous psychiatric hospitalization, physical abuse, and sexual abuse; by comparison an overwhelming percentage of boys who enter services between the ages of 15 and 18 have histories of substance use and running away. These differences may be due to referral source, as noted above, along with differences in access and means. For example, older children may have more avenues and resources to obtain alcohol or drugs than younger boys. Also, because of physical maturation they may be capable of making more realistic attempts at running away. A less easily explained phenomenon was the fact that, regardless of family risk factor, the highest percentages of family risk

Table 4
Total CAFAS Scale Scores by Age Group

Family Risk Factor	5–10 Years (*n* = 865)	11–14 Years (*n* = 1,161)	15–18 Years (*n* = 836)
Minimal Impairment	2.4%	1.5%	1.5%
Mild Impairment	8.0%	5.9%	7.9%
Moderate Impairment	36.1%	30.1%	28.2%
Marked Impairment	32.9%	35.8%	28.5%
Severe Impairment	20.6%	26.7%	33.85

[a] $\chi^2 = 51.03$, $df = 8$, $p < .001$.

factors reported were for boys who entered systems of care between the ages of 5 and 10.

Finally, clinical indicators differed significantly by age group. Boys between the ages of 15 and 18 had significantly fewer emotional and behavioral problems, as measured by the CBCL, while younger boys aged 5–10 had significantly less functional impairment. The former can be explained once again by referral source since they are more likely to be referred for criminal justice involvement rather than for the emotional problems toward which the CBCL is more weighted; however, the latter finding about younger boys is puzzling given the preponderance of ADHD diagnoses in the group comprised of 5–10-year-olds, which is likely to affect school functioning.

Conclusions

Results from these analyses point toward the need for targeted interventions when working with boys in different age groups within systems of care. Given the findings noted above, clearly early intervention and screening programs are needed. Children in the 5–10-year-old group were more likely to have been sexually abused and have family histories that put them at risk for behavioral and emotional problems. Given the age of these children, the preponderance of ADHD, and clinical levels of emotional and behavioral problems experienced by these children, school-based programs targeted toward addressing behavioral and emotional problems seem to be an appropriate mode of intervention. Results also indicate the need for continued support for boys entering their preteen and early teen years. In the analyses above, youth between the ages of 11 and 14 showed the highest levels of behavioral and emotional problems and greatest percentage of marked or severe functional impairment of the three age groups examined.

Finally, as boys get older, very serious problem behaviors such as running away, substance abuse, and breaking the law become an issue. For older boys still in school, school-based programs are still a viable option, but transition programs that help prepare at-risk youth for the move to independent living seem warranted. For older youth, community-based programs and even criminal justice system-based programs such as youth or adult diversion programs may be more appropriate.

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